



SEQUENCE LISTING

<110> Mack, David
Gish, Kurt
EOS Biotechnology, Inc.

<120> Methods of Diagnosis of Breast Cancer, Compositions and
Methods of Screening for Modulators of Breast Cancer

<130> 018501-001200US

<140> US 09/829,472
<141> 2001-04-09

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<170> PatentIn Ver. 2.1

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 Val Met Val Pro Pro Leu Pro Ser Leu Asn Pro Gly Pro Ala Leu Glu
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 Glu Gly Gln Gly Leu Thr Leu Ala Ala Ser Cys Thr Ala Glu Gly Ser
 165 170 175
 Pro Ala Pro Ser Val Thr Trp Asp Thr Glu Val Lys Gly Thr Thr Ser
 180 185 190
 Ser Arg Ser Phe Lys His Ser Arg Ser Ala Ala Val Thr Ser Glu Phe
 195 200 205
 His Leu Val Pro Ser Arg Ser Met Asn Gly Gln Pro Leu Thr Cys Val
 210 215 220
 Val Ser His Pro Gly Leu Leu Gln Asp Gln Arg Ile Thr His Ile Leu
 225 230 235 240
 His Val Ser Phe Leu Ala Glu Ala Ser Val Arg Gly Leu Glu Asp Gln
 245 250 255
 Asn Leu Trp His Ile Gly Arg Glu Gly Ala Met Leu Lys Cys Leu Ser
 260 265 270
 Glu Gly Gln Pro Pro Pro Ser Tyr Asn Trp Thr Arg Leu Asp Gly Pro
 275 280 285
 Leu Pro Ser Gly Val Arg Val Asp Gly Asp Thr Leu Gly Phe Pro Pro
 290 295 300
 Leu Thr Thr Glu His Ser Gly Ile Tyr Val Cys His Val Ser Asn Glu
 305 310 315 320

Phe	Ser	Ser	Arg	Asp	Ser	Gln	Val	Thr	Val	Asp	Val	Leu	Asp	Pro	Gln
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Glu	Asp	Ser	Gly	Lys	Gln	Val	Asp	Leu	Val	Ser	Ala	Ser	Val	Val	Val
340								345							350
Val	Gly	Val	Ile	Ala	Ala	Leu	Leu	Phe	Cys	Leu	Leu	Val	Val	Val	Val
355									360						365
Val	Leu	Met	Ser	Arg	Tyr	His	Arg	Arg	Lys	Ala	Gln	Gln	Met	Thr	Gln
370								375							380
Lys	Tyr	Glu	Glu	Glu	Leu	Thr	Leu	Thr	Arg	Glu	Asn	Ser	Ile	Arg	Arg
385								390							400
Leu	His	Ser	His	His	Thr	Asp	Pro	Arg	Ser	Gln	Pro	Glu	Glu	Ser	Val
									405						415
Gly	Leu	Arg	Ala	Glu	Gly	His	Pro	Asp	Ser	Leu	Lys	Asp	Asn	Ser	Ser
									420						430
Cys	Ser	Val	Met	Ser	Glu	Glu	Pro	Glu	Gly	Arg	Ser	Tyr	Ser	Thr	Leu
								435							445
Thr	Thr	Val	Arg	Glu	Ile	Glu	Thr	Gln	Thr	Glu	Leu	Leu	Ser	Pro	Gly
								450							460
Ser	Gly	Arg	Ala	Glu	Glu	Glu	Asp	Gln	Asp	Glu	Gly	Ile	Lys	Gln	
								465							480
Ala	Met	Asn	His	Phe	Val	Gln	Glu	Asn	Gly	Thr	Leu	Arg	Ala	Lys	Pro
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Thr	Gly	Asn	Gly	Ile	Tyr	Ile	Asn	Gly	Arg	Gly	His	Leu	Val		
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<213> Mus sp.

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<223> mouse BCX5, mouse LNIR, mouse orthologue of human
BCX5 type 1a transmembrane protein

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<222> (1)..(486)
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Leu Glu Thr Ser Asp Val Val Thr Val Val Leu Gly Gln Asp Ala Lys
35 40 45

Leu Pro Cys Phe Tyr Arg Gly Asp Pro Asp Glu Gln Val Gly Gln Val
 50 55 60

Ala Trp Ala Arg Val Asp Pro Asn Glu Xaa Tyr Pro Gly Ala Gly Leu
 65 70 75 80

Leu His Ser Lys Tyr Gly Leu His Val Asn Pro Ala Tyr Glu Asp Arg
 85 90 95

Val Glu Gln Xaa Xaa His Glu Thr Phe Arg Arg Ser Val Leu Leu Arg
 100 105 110

Asn Ala Val Gln Ala Asp Glu Gly Glu Tyr Glu Cys Arg Val Ser Thr
 115 120 125

Phe Pro Ser Gly Ser Phe Gln Ala Arg Met Arg Leu Arg Val Leu Val
 130 135 140

Pro Pro Leu Pro Ser Leu Asn Pro Gly Pro Pro Leu Glu Glu Gly Gln
 145 150 155 160

Ala Asp Val Ala Ala Ser Cys Thr Ala Glu Gly Ser Pro Ala Pro Ser
 165 170 175

Val Thr Trp Asp Thr Glu Val Lys Gly Thr Gln Ser Ser Arg Ser Phe
 180 185 190

Thr His Pro Arg Ser Ala Ala Val Thr Ser Glu Phe His Leu Val Pro
 195 200 205

Ser Arg Ser Met Asn Gly Gln Pro Leu Thr Cys Val Val Ser His Pro
 210 215 220

Gly Leu Leu Gln Asp Arg Arg Ile Thr His Thr Leu Gln Val Ala Phe
 225 230 235 240

Leu Ala Glu Ala Ser Val Arg Gly Leu Glu Asp Gln Asn Leu Trp Gln
 245 250 255

Val Gly Arg Glu Gly Ala Thr Leu Lys Cys Leu Ser Glu Gly Gln Pro
 260 265 270

Pro Pro Lys Tyr Asn Trp Thr Arg Leu Asp Gly Pro Leu Pro Ser Gly
 275 280 285

Val Arg Val Lys Gly Asp Thr Leu Gly Phe Pro Pro Leu Thr Thr Glu
 290 295 300

His Ser Gly Val Tyr Xaa Cys His Val Ser Asn Glu Leu Ser Ser Arg
 305 310 315 320

Asp Ser Gln Val Thr Val Glu Val Leu Asp Pro Glu Asp Pro Gly Lys
 325 330 335

Gln Val Asp Leu Val Ser Ala Ser Val Ile Ile Val Gly Val Ile Ala
 340 345 350

Ala Leu Leu Phe Cys Leu Leu Val Val Val Val Val Leu Met Ser Arg
 355 360 365

Tyr His Arg Arg Lys Ala Gln Gln Met Thr Gln Lys Tyr Glu Glu Glu
 370 375 380

Leu Thr Leu Thr Arg Glu Asn Ser Ile Arg Arg Leu His Ser His His
 385 390 395 400

Ser Asp Pro Arg Ser Gln Pro Glu Glu Ser Val Gly Leu Arg Ala Glu
 405 410 415

Gly His Pro Asp Ser Leu Lys Asp Asn Ser Ser Cys Ser Val Met Ser
 420 425 430

Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu Thr Thr Val Arg Glu
 435 440 445

Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro Gly Ser Gly Arg Thr Glu
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Cys Arg Lys Met Gly Pro
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<210> 8
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 <212> DNA
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 tagaagtaga agacttagct tcaaattcct actccttcac ttactaattt tgtgatttgg 240
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 aaggagcaat atactatcat aaacagaaca gcatccacgtg tcacctttac agatatacg 540
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gtcttcctaa	gatccgagtc	tacccagccc	ttgttagatt	cagaggagcg	gccagaagat	2640
ctacaattag	tagatcatgt	agatggcggt	gatggattt	tgcccaggca	acagtaacttc	2700
aaacagaact	gcagtcagca	tgaatccagt	ccagatattt	cacattttga	aaggtaaaag	2760
caagtttcat	cagtcaatga	ggaagatttt	gttagactta	aacagcagat	ttcagatcat	2820
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<212> PRT
<213> Homo sapiens

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Pro Glu Ser Pro Val Val Gln Leu His Ser Asn Phe Thr Ala Val Cys
      35          40          45

Val Leu Lys Glu Lys Cys Met Asp Tyr Phe His Val Asn Ala Asn Tyr
      50          55          60

Ile Val Trp Lys Thr Asn His Phe Thr Ile Pro Lys Glu Gln Tyr Thr
      65          70          75          80

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Ile	Ile	Asn	Arg	Thr	Ala	Ser	Ser	Val	Thr	Phe	Thr	Asp	Ile	Ala	Ser
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Glu	Trp	Asp	Gly	Gly	Arg	Glu	Thr	His	Leu	Glu	Thr	Asn	Phe	Thr	Leu
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Lys	Ser	Glu	Trp	Ala	Thr	His	Lys	Phe	Ala	Asp	Cys	Lys	Ala	Lys	Arg
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Asn	Ile	Glu	Val	Trp	Val	Glu	Ala	Glu	Asn	Ala	Leu	Gly	Lys	Val	Thr
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Ser	Asp	His	Ile	Asn	Phe	Asp	Pro	Val	Tyr	Lys	Val	Lys	Pro	Asn	Pro
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Pro	His	Asn	Leu	Ser	Val	Ile	Asn	Ser	Glu	Glu	Leu	Ser	Ser	Ile	Leu
					225				230					235	240
Lys	Leu	Thr	Trp	Thr	Asn	Pro	Ser	Ile	Lys	Ser	Val	Ile	Ile	Leu	Lys
					245				250					255	
Tyr	Asn	Ile	Gln	Tyr	Arg	Thr	Lys	Asp	Ala	Ser	Thr	Trp	Ser	Gln	Ile
					260				265					270	
Pro	Pro	Glu	Asp	Thr	Ala	Ser	Thr	Arg	Ser	Ser	Phe	Thr	Val	Gln	Asp
					275				280					285	
Leu	Lys	Pro	Phe	Thr	Glu	Tyr	Val	Phe	Arg	Ile	Arg	Cys	Met	Lys	Glu
					290				295					300	
Asp	Gly	Lys	Gly	Tyr	Trp	Ser	Asp	Trp	Ser	Glu	Glu	Ala	Ser	Gly	Ile
					305				310					315	320
Thr	Tyr	Glu	Asp	Arg	Pro	Ser	Lys	Ala	Pro	Ser	Phe	Trp	Tyr	Lys	Ile
					325				330					335	
Asp	Pro	Ser	His	Thr	Gln	Gly	Tyr	Arg	Thr	Val	Gln	Leu	Val	Trp	Lys
					340				345					350	
Thr	Leu	Pro	Pro	Phe	Glu	Ala	Asn	Gly	Lys	Ile	Leu	Asp	Tyr	Glu	Val
					355				360					365	
Thr	Leu	Thr	Arg	Trp	Lys	Ser	His	Leu	Gln	Asn	Tyr	Thr	Val	Asn	Ala
					370				375					380	
Thr	Lys	Leu	Thr	Val	Asn	Leu	Thr	Asn	Asp	Arg	Tyr	Leu	Ala	Thr	Leu
					385				390					395	400

Thr Val Arg Asn Leu Val Gly Lys Ser Asp Ala Ala Val Leu Thr Ile
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 Pro Ala Cys Asp Phe Gln Ala Thr His Pro Val Met Asp Leu Lys Ala
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 Phe Pro Lys Asp Asn Met Leu Trp Val Glu Trp Thr Thr Pro Arg Glu
 435 440 445

 Ser Val Lys Lys Tyr Ile Leu Glu Trp Cys Val Leu Ser Asp Lys Ala
 450 455 460

 Pro Cys Ile Thr Asp Trp Gln Gln Glu Asp Gly Thr Val His Arg Thr
 465 470 475 480

 Tyr Leu Arg Gly Asn Leu Ala Glu Ser Lys Cys Tyr Leu Ile Thr Val
 485 490 495

 Thr Pro Val Tyr Ala Asp Gly Pro Gly Ser Pro Glu Ser Ile Lys Ala
 500 505 510

 Tyr Leu Lys Gln Ala Pro Pro Ser Lys Gly Pro Thr Val Arg Thr Lys
 515 520 525

 Lys Val Gly Lys Asn Glu Ala Val Leu Glu Trp Asp Gln Leu Pro Val
 530 535 540

 Asp Val Gln Asn Gly Phe Ile Arg Asn Tyr Thr Ile Phe Tyr Arg Thr
 545 550 555 560

 Ile Ile Gly Asn Glu Thr Ala Val Asn Val Asp Ser Ser His Thr Glu
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 Tyr Thr Leu Ser Ser Leu Thr Ser Asp Thr Leu Tyr Met Val Arg Met
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 Ala Ala Tyr Thr Asp Glu Gly Lys Asp Gly Pro Glu Phe Thr Phe
 595 600 605

 Thr Thr Pro Lys Phe Ala Gln Gly Glu Ile Glu Ala Ile Val Val Pro
 610 615 620

 Val Cys Leu Ala Phe Leu Leu Thr Thr Leu Leu Gly Val Leu Phe Cys
 625 630 635 640

 Phe Asn Lys Arg Asp Leu Ile Lys Lys His Ile Trp Pro Asn Val Pro
 645 650 655

 Asp Pro Ser Lys Ser His Ile Ala Gln Trp Ser Pro His Thr Pro Pro
 660 665 670

 Arg His Asn Phe Asn Ser Lys Asp Gln Met Tyr Ser Asp Gly Asn Phe
 675 680 685

 Thr Asp Val Ser Val Val Glu Ile Glu Ala Asn Asp Lys Lys Pro Phe
 690 695 700

 Pro Glu Asp Leu Lys Ser Leu Asp Leu Phe Lys Lys Glu Lys Ile Asn
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Thr Glu Gly His Ser Ser Gly Ile Gly Gly Ser Ser Cys Met Ser Ser
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 Ser Arg Pro Ser Ile Ser Ser Ser Asp Glu Asn Glu Ser Ser Gln Asn
 740 745 750
 Thr Ser Ser Thr Val Gln Tyr Ser Thr Val Val His Ser Gly Tyr Arg
 755 760 765
 His Gln Val Pro Ser Val Gln Val Phe Ser Arg Ser Glu Ser Thr Gln
 770 775 780
 Pro Leu Leu Asp Ser Glu Glu Arg Pro Glu Asp Leu Gln Leu Val Asp
 785 790 795 800
 His Val Asp Gly Asp Gly Ile Leu Pro Arg Gln Gln Tyr Phe Lys
 805 810 815
 Gln Asn Cys Ser Gln His Glu Ser Ser Pro Asp Ile Ser His Phe Glu
 820 825 830
 Arg Ser Lys Gln Val Ser Ser Val Asn Glu Glu Asp Phe Val Arg Leu
 835 840 845
 Lys Gln Gln Ile Ser Asp His Ile Ser Gln Ser Cys Gly Ser Gly Gln
 850 855 860
 Met Lys Met Phe Gln Glu Val Ser Ala Ala Asp Ala Phe Gly Pro Gly
 865 870 875 880
 Thr Glu Gly Gln Val Glu Arg Phe Glu Thr Val Gly Met Glu Ala Ala
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atgctgtatgg agagcgccag tttaacctaa atgcaaacag cgtccccaca gccacacaga 360
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Lys Glu Phe Ala Gly Ser Tyr Asn Ser Ser Asp Asp Glu Val Tyr Ser
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Arg Pro Ser Ser Leu Val Ser Ser Ser Pro Gln Arg Ser Thr Ser Ser
50 55 60

Asp Ala Asp Gly Glu Arg Gln Phe Asn Leu Asn Gly Asn Ser Val Pro
65 70 75 80

Thr Ala Thr Gln Thr Leu Met Thr Met Tyr Arg Arg Arg Ser Pro Glu
85 90 95

Glu Phe Asn Pro Lys Leu Ala Lys Glu Phe Leu Lys Glu Gln Ala Trp
100 105 110

Lys Ile His Phe Ala Glu Tyr Gly Gln Gly Ile Cys Met Tyr Arg Thr
115 120 125

Glu Lys Thr Arg Glu Leu Val Leu Lys Gly Ile Pro Glu Ser Met Arg
130 135 140

Gly Glu Leu Trp Leu Leu Ser Gly Ala Ile Asn Glu Lys Ala Thr
145 150 155 160

His Pro Gly Tyr Tyr Glu Asp Leu Val Glu Lys Ser Met Gly Lys Tyr
165 170 175

Asn Leu Ala Thr Glu Glu Ile Glu Arg Asp Leu His Arg Ser Leu Pro
180 185 190

Glu His Pro Ala Phe Gln Asn Glu Met Gly Ile Ala Ala Leu Arg Arg
195 200 205

Val Leu Thr Ala Tyr Ala Phe Arg Asn Pro Asn Ile Gly Tyr Cys Gln
210 215 220

Ala Met Asn Ile Val Thr Ser Val Leu Leu Tyr Ala Lys Glu Glu
225 230 235 240

Glu Ala Phe Trp Leu Leu Val Ala Leu Cys Glu Arg Met Leu Pro Asp
245 250 255

Tyr Tyr Asn Thr Arg Val Val Gly Ala Leu Val Asp Gln Gly Val Phe
 260 265 270

Glu Glu Leu Ala Arg Asp Tyr Val Pro Gln Leu Tyr Asp Cys Met Gln
 275 280 285

Asp Leu Gly Val Ile Ser Thr Ile Ser Leu Ser Trp Phe Leu Thr Leu
 290 295 300

Phe Leu Ser Val Met Pro Phe Glu Ser Ala Val Val Val Asp Cys
 305 310 315 320

Phe Phe Tyr Glu Gly Ile Lys Val Ile Phe Gln Leu Ala Leu Ala Val
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Leu Asp Ala Asn Val Asp Lys Leu Leu Asn Cys Lys Asp Asp Gly Glu
 340 345 350

Ala Met Thr Val Leu Gly Arg Tyr Leu Asp Ser Val Thr Asn Lys Asp
 355 360 365

Ser Thr Leu Pro Pro Ile Pro His Leu His Ser Leu Leu Ser Asp Asp
 370 375 380

Val Glu Pro Tyr Pro Glu Val Asp Ile Phe Arg Leu Ile Arg Thr Ser
 385 390 395 400

Tyr Glu Lys Phe Gly Thr Ile Arg Ala Asp Leu Ile Glu Gln Met Arg
 405 410 415

Phe Lys Gln Arg Leu Lys Val Ile Gln Thr Leu Glu Asp Thr Thr Lys
 420 425 430

Arg Asn Val Val Arg Thr Ile Val Thr Glu Thr Ser Phe Thr Ile Asp
 435 440 445

Glu Leu Glu Glu Leu Tyr Ala Leu Phe Lys Ala Glu His Leu Thr Ser
 450 455 460

Cys Tyr Trp Gly Gly Ser Ser Asn Ala Leu Asp Arg His Asp Pro Ser
 465 470 475 480

Leu Pro Tyr Leu Glu Gln Tyr Arg Ile Asp Phe Glu Gln Phe Lys Gly
 485 490 495

Met Phe Ala Leu Leu Phe Pro Trp Ala Cys Gly Thr His Ser Asp Val
 500 505 510

Leu Ala Ser Arg Leu Phe Gln Leu Leu Asp Glu Asn Gly Asp Ser Leu
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Ile Asn Phe Arg Glu Phe Val Ser Gly Leu Ser Ala Ala Cys His Gly
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Asp Leu Thr Glu Lys Leu Lys Leu Leu Tyr Lys Met His Val Leu Pro
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 565 570 575

Gln Tyr Phe Phe Glu Asp Ile Thr Pro Glu Cys Thr His Val Val Gly
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 Val Gly Lys Leu Phe Val Ala Gln Pro Ala Lys Glu Gly Gly Ser Gly
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 Lys Lys Gly Pro Gly Gln Pro Tyr Val Val Glu Ser Val Glu Pro Leu
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 Cys Ser Ser Met Leu Ile Ser Asp Asp Asp Thr Lys Asp Asp Ser Ser
 770 775 780
 Met Ser Ser Tyr Ser Val Leu Ser Ala Gly Ser His Glu Glu Asp Lys
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 Leu His Cys Glu Glu Ile Gly Glu Asp Thr Val Leu Val Arg Ser Gly
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 Gln Gly Thr Ala Ala Leu Pro Arg Ser Thr Ser Leu Asp Arg Asp Trp
 820 825 830
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 Leu Val Lys Tyr Phe Asp Lys Pro Val Cys Met Met Ala Arg Ile Thr
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 Asp Tyr Glu Ile Ser Ala Met Ser Gly
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Phe His Lys Ser Ser Phe Lys Leu Ser Val Leu Arg Phe Ser Cys Gly
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Lys Val Ser Phe Lys Lys Val Ile Gly Ile His Ile Pro His His
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Arg Ser Ser Leu Trp Cys Xaa Phe Phe Tyr Met Thr Ser Arg Lys Ile
85 90 95

Leu Ile Phe Ser Gln Tyr Arg Phe Trp Gly Phe His Ile Ile Lys Arg
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Leu Lys Asn Tyr Asn Phe Arg Ile Lys Leu Met Asp Phe Ile Ile Glu
115 120 125

Leu Ser Val Ser Cys Val Asp Thr Val Leu Met Phe Leu Val Met Thr
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Asp Lys Phe Ala Gln Lys Met Trp Met Lys Pro Leu Leu Leu Leu
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His Ala Ala Glu Leu Pro Tyr Lys Phe His Leu Ala Ala Pro
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<223> BFA1

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Cys	Ala	Phe	Lys	Ile	His	Gly	Gln	Glu	Leu	Pro	Phe	Glu	Ala	Val	Val	
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Leu	Asn	Lys	Thr	Ser	Gly	Glu	Gly	Arg	Leu	Arg	Ala	Lys	Ser	Pro	Ile	
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Asp	Cys	Glu	Leu	Gln	Lys	Glu	Tyr	Thr	Phe	Ile	Ile	Gln	Ala	Tyr	Asp	
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Ser Ile Leu Gln Val Glu Ala Ile Asp Glu Asp Cys Ser Pro Gln Tyr
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Ser Gln Ile Cys Asn Tyr Glu Ile Val Thr Thr Asp Val Pro Phe Ala
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Ile Asp Arg Asn Gly Asn Ile Arg Asn Thr Glu Lys Leu Ser Tyr Asp
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Lys Gln His Gln Tyr Glu Ile Leu Val Thr Ala Tyr Asp Cys Gly Gln
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Lys Pro Ala Ala Gln Asp Thr Leu Val Gln Val Asp Val Lys Pro Val
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Cys Lys Pro Gly Trp Gln Asp Trp Thr Lys Arg Ile Glu Tyr Gln Pro
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Gly Ser Gly Ser Met Pro Leu Phe Pro Ser Ile His Leu Glu Thr Cys
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Tyr Ile Gly Lys Gly Cys Asp Arg Glu Thr Tyr Ser Glu Lys Ser Leu
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Gln Lys Leu Cys Gly Ala Ser Ser Gly Ile Ile Asp Leu Leu Pro Ser
 325 330 335

Pro Ser Ala Ala Thr Asn Trp Thr Ala Gly Leu Leu Val Asp Ser Ser
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Glu Met Ile Phe Lys Phe Asp Gly Arg Gln Gly Ala Lys Ile Pro Asp
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Gly Ile Val Pro Lys Asn Leu Thr Asp Gln Phe Thr Ile Thr Met Trp
 370 375 380

Met Lys His Gly Pro Ser Pro Gly Val Arg Ala Glu Lys Glu Thr Ile
 385 390 395 400

Leu Cys Asn Ser Asp Lys Thr Glu Met Asn Arg His His Tyr Ala Leu
 405 410 415

Tyr Val His Asn Cys Arg Leu Val Phe Leu Leu Arg Lys Asp Phe Asp
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Gln Ala Asp Thr Phe Arg Pro Ala Glu Phe His Trp Lys Leu Asp Gln
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Ile Cys Asp Lys Glu Trp His Tyr Tyr Val Ile Asn Val Glu Phe Pro
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 Val Val Thr Leu Tyr Met Asp Gly Ala Thr Tyr Glu Pro Tyr Leu Val
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 Thr Asn Asp Trp Pro Ile His Pro Ser His Ile Ala Met Gln Leu Thr
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 Val Gly Ala Cys Trp Gln Gly Gly Glu Val Thr Lys Pro Gln Phe Ala
 500 505 510
 Gln Phe Phe His Gly Ser Leu Ala Ser Leu Thr Ile Arg Pro Gly Lys
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 Met Glu Ser Gln Lys Val Ile Ser Cys Leu Gln Ala Cys Lys Glu Gly
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 Phe Pro Thr Ala Gly Val Arg Arg Leu Lys Val Ser Ser Lys Val Gln
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 Cys Phe Gly Glu Asp Val Cys Ile Ser Ile Pro Glu Val Asp Ala Tyr
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 Val Met Val Leu Gln Ala Ile Glu Pro Arg Ile Thr Leu Arg Gly Thr
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 Thr Leu Phe Pro Asp Ile Lys Ile Val Ser Thr Phe Ala Lys Thr Glu
 660 665 670
 Ala Pro Gly Asp Val Lys Thr Thr Asp Pro Lys Ser Glu Val Leu Glu
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 Asp Leu Asp Pro Arg Gln Glu Cys Leu Glu Leu Asn His Ser Glu Leu
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 Tyr Gly Val Gly Ser Met Ser Arg Tyr Glu Gln Val Leu His His Ile
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 Arg Tyr Arg Asn Trp Arg Pro Ala Ser Leu Glu Ala Arg Arg Phe Arg
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 Pro Glu Ser Arg Ser Ser Ile Gln His Ser Ser Val Val Pro Ser Ile
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 Ala Met Gly Val Tyr Arg Val Arg Ile Ala His Gln His Phe Ile Gln
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Gln Asn Cys Ser Gly Gly Ala Leu Asn His Phe Arg Ser Arg Gln Pro
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Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys Arg Asp Asp Cys Lys Tyr
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Glu Cys Met Trp Val Thr Val Gly Leu Tyr Leu Gln Glu Gly His Lys
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 Gln Glu Pro Ala Ser Ala Val Ala Ser Phe Leu Asn Gly Leu Ala Ser
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 Phe Trp Ser Thr Val Phe His Thr Arg Asp Thr Asp Leu Thr Glu Lys
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 Met Asp Tyr Phe Cys Ala Ser Thr Val Ile Leu His Ser Ile Tyr Leu
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 Cys Cys Val Arg Thr Val Gly Leu Gln His Pro Ala Val Val Ser Ala
 195 200 205

 Phe Arg Ala Leu Leu Leu Met Leu Thr Val His Val Ser Tyr Leu
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 Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala Trp Cys Leu Trp Asn
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 <223> BCN4, ESTs, secreted protein

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 <222> (143)..(874)
 <223> BCN4

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<210> 19

<211> 243

<212> PRT

<213> Homo sapiens

<220>

<223> BCN4, ESTs, secreted protein

<400> 19

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Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu
20 25 30

Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val
35 40 45

Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
50 55 60

Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile
65 70 75 80

Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
85 90 95

Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
100 105 110

Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
115 120 125

Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
130 135 140

Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
 145 150 155 160

Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile
 165 170 175

Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His
 180 185 190

Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
 195 200 205

Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly
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Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
 225 230 235 240

Leu Pro Lys

<210> 20
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 <212> PRT
 <213> Mus sp.

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 <223> Xaa = any amino acid

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 1 5 10 15

Val Leu Leu Leu Leu Leu Gln Leu Ser Ala Pro Ser Ser Ala Ser Glu
 20 25 30

Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu Val Val
 35 40 45

Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
 50 55 60

Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile
 65 70 75 80

Pro Cys Gln Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
 85 90 95

Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
 100 105 110

Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
 115 120 125

Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
 130 135 140

Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
145 150 155 160

Phe Asn Gly Ala Glu Cys Ser Gly Pro Pro Pro Ile Glu Ala Ile Xaa
165 170 175

Xaa
180 185 190

Xaa
195 200 205

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Asp Tyr Pro Lys Gly
210 215 220

Asp Ala Tyr Thr Gly Trp Asp Ser Val Ser Arg Ile Ile Ile Glu Glu
225 230 235 240

Leu Pro Lys